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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/842,536 | 04/25/2001 | David K. Vavro | 42390.P10917 | 7252 |

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| EXAMINER |
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TSAI, HENRY

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| ART UNIT | PAPER NUMBER |
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2183

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------|-----------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/842,536 | VAVRO, DAVID K. | |
| | Examiner | Art Unit | |
| | Henry W.H. Tsai | 2183 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 7/15/04.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-11 and 15-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4-11 and 15 is/are allowed.
- 6) ☒ Claim(s) 19-28 is/are rejected.
- 7) ☒ Claim(s) 16-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Objections

1. Claims 16-18 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Note claim 16 should not depend from the cancelled claim 12.

2. Claims 23 and 28 are objected to because of the following informalities:

in claim 23, line 3, "to a load" should read -to load-; and before "if", --and-- should be inserted.

in claim 28, line 4, "to a load" should read -to load-; and before "if", --and-- should be inserted.

Appropriate correction is required.

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Claim Rejections - 35 USC § 112

3. Claims 19-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 19, line 8, it is not clear what is meant by "retrieving the buffer from a second buffer". Should it read - retrieving the first instruction from a second buffer- ? Similar problems exist in the other claim 24.

In claim 19, lines 3-4, it is not clear what is meant by "examining a bit within the first instruction to determine whether the first instruction is to be retrieved from a first buffer" since in line 2, the step: "receiving a first instruction at an instruction buffer" already implies that the first instruction has been retrieved. Similar problems exist in the other claim 24.

In claim 21, line 7, it is not clear how to have the step of "executing the first instruction from the instruction buffer" when the first instruction was determined to retrieve the buffer from a second buffer. Similar problems exist in the other claim 26.

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Applicant is required to review the claims and correct all language which does not comply with 35 U.S.C. § 112, second paragraph.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 19-21 and 24-26, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Shiell et al. (U.S. Patent No. 5,935,241) hereafter referred to as Shiell et al.'241

Referring to claims 19 and 24, Shiell et al.'241 discloses as a method comprising: receiving a first instruction at an instruction buffer (see Fig. 2, main memory 305 or inside instruction buffer and control 60 which is in a fetch unit 26, see also Col. 9, lines 30-31); examining a bit within the first instruction to determine whether the first instruction is to be

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retrieved from a first buffer (level 1 instruction cache 16i see Fig. 1); retrieving the first instruction from the first buffer (level 1 instruction cache 16i see Fig. 1) if the bit indicates that the first instruction is to be retrieved from the first buffer; otherwise, retrieving first instruction from a second buffer (level 2 instruction cache 11 see Fig. 1). Note when the first instruction has not been in the level 1 instruction cache (such as in a cache miss situation) then the Shiell et al. system will try to retrieve first instruction from a second buffer (level 2 instruction cache 11 see Fig. 1).

As to claims 20 and 25, Shiell et al.'241 also discloses: executing the first instruction after it has been retrieved from the first buffer (level 1 instruction cache 16i see Fig. 1).

As to claims 21 and 26, Shiell et al.'241, as best understood, also discloses: examining the bit within the first instruction to determine whether the first instruction is to be stored in the first buffer if the first instruction has not been designated to be retrieved from the first buffer (note this is the situation when level 1 does not contain the first instruction); storing the first instruction in the first buffer (level 1 instruction cache 16i see Fig. 1); and executing the first instruction from the instruction buffer (level 2

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instruction cache 11 see Fig. 1).

Allowable Subject Matter

6. Claims 1, 2, 4-11 and 15 are allowed.

7. Claims 16-18 would be allowable if rewritten to overcome the objection, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

8. Claims 22, 23, 27, and 28 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: Shiell et al.'241, the closest reference, and the other prior art do not teach or fairly suggest: a decode module to decode an instruction to determine whether the instruction is to be stored in the first MO buffer (in claim 1, and claim 11 recites the corresponding limitations) in combination with the other limitations of respective claims

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(claims 1 and 11). Besides, the combination is not obvious. Shiell et al.'241 does disclose a decode module. However, the Shiell et al.'241's decode module lacks the specific function as claimed as set forth.

Response to Arguments

10. Applicant's arguments filed 7/15/04 have been fully considered but they are not deemed to be persuasive.

Regarding the 35 U.S.C. §112, second paragraph problems, and the claim objections, Applicant's response has not completely overcome these objections and rejections.

Applicants argue that nowhere in Shiell is there disclosed a process of examining a bit within an instruction to determine if the instruction is to be stored within a buffer. Examiner realizes the situation. However, as set forth in the 112 2nd rejection, In claim 19, lines 3-4, it is not clear what is meant by "examining a bit within the first instruction to determine whether the first instruction is to be retrieved from a first buffer" since in line 2, the step: "receiving a first

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instruction at an instruction buffer" already implies that the first instruction has been retrieved. Claims 19-21 and 24-26 are, as best understood, rejected.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


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Contact Information

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Henry Tsai whose telephone number is (703) 308-7600. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner supervisor, Eddie Chan, can be reached on (703) 305-9712. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 receptionist whose telephone number is (703) 305-3900.

13. In order to reduce pendency and avoid potential delays, Group 2100 is encouraging FAXing of responses to Office actions directly into the Group at fax number: 703-872-9306.

This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into Group 2100 will be promptly forward to the examiner.


HENRY W. H. TSAI
PRIMARY EXAMINER

September 20, 2004